Massachusetts Institute of Technology
Biological Engineering Department

Thesis Proposal (OR Defense)
Doctor of Philosophy

FIRST LINE TITLE
SECOND LINE TITLE

Date of Submission:

October 18, 2018

Submitted by: YOUR NAME

Signed: _____

Supervisor: SUPERVISOR NAME
Professor of DEPARTMENT &
SECOND DEPARTMENT TITLE

Signed: _____

Academic Office: ACADEMIC COORDINATOR
Academic Administrator
YOUR DEPARTMENT

Signed: _____

Contents

Abstract

Abstract should be no more than **300 words in 1 page**.

State the significance of the proposed research. Include long-term objectives and specific aims. Describe concisely the research design and methods for achieving these objectives. Highlight the specific hypotheses to be tested, goals to be reached, or technology to be developed, which are intended to be your original contributions. Avoid summaries of past accomplishments.

1 OBJECTIVE

Overall Objective & Specific Aims should be **1 page maximum**.

1.1 OBJECTIVE SUBSECTION

Articulate the overall objective of your thesis project, and outline a set of specific aims by which your work is intended to accomplish this objective. Be sure to clearly state the hypotheses to be tested, goals to be reached, or technology to be developed.

2 BACKGROUND

Background & Significance section should be **3-5 pages**.

2.1 BACKGROUND SUBSECTION

Sketch the background leading to the present research, critically evaluate existing knowledge, and specifically identify the gaps that your research is intended to fill. State concisely the importance of the research described in this proposal by relating the specific aims to the broad, long-term objectives.

3 METHODS

Research Design & Methods section should be **3-5 pages**.

3.1 METHODS SUBSECTION

Along with the Objective & Aims section, this is the most important part of the proposal. The majority of your time should be spent making this part of your proposal strong, direct, and completely clear. Describe the research design and the procedures to be used to accomplish the specific aims of the project; it is generally most effective to do this according to the same outline as in the Objective & Aims section. Include how the data will be collected, analyzed, and interpreted. Describe any new methodology and its advantage over existing methodologies. Discuss the potential difficulties and limitations of the proposed procedures and alternative approaches to achieve the aims. As part of this section, provide a tentative timetable for the project. Point out any procedures, situations or materials that may be hazardous and the precautions to be exercised.

4 RESULTS

Preliminary Studies section should be **3-4 pages**.

This section may be alternatively be located before the Research Design & Methods Section 3.

4.1 RESULTS SUBSECTION

Use this section to provide an account of your preliminary studies that are pertinent to your research project and that support your specific aims. Note: it is not necessary to have obtained a substantial amount of preliminary data in order to submit or defend the proposal, although it will be expected that you have begun to undertake some of the key methods to assess their feasibility.

This is a random citation [1, 2]

References

[1] Jerome O Nrtagu. Arsenic poisoning through the ages. *Environmental chemistry of arsenic*, page 1, 2001.

[2] Milton A Lessler. Lead and lead poisoning from antiquity to modern times. *fwafwafe*, 1988.

A APPENDIX

A.1 SUB APPENDIX